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Federal Communications Commission

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Before the  
Federal Communications Commission  
Washington, D.C. 20554

PR Docket No. 92-151

In the Matter of

Federal Access to  
Low Power 18 GHz  
Private Operational  
Fixed Microwave Systems

RM-7839

NOTICE OF PROPOSED RULE MAKING

Adopted: July 1, 1992;

Released: July 17, 1992

Comment Date: September 7, 1992

Reply Comment Date: September 22, 1992

By the Commission:

I. INTRODUCTION

1. In this *Notice of Proposed Rule Making* we propose to amend Section 94.17(a)(1) of the Rules to permit federal government users to be served by Part 94 licensees operating 18 GHz low power systems licensed on digital termination system ("DTS") channels on a for-profit, private carrier basis. This proposal is in response to a petition for rule making filed by Motorola Inc. ("Motorola"), a pioneer in the development and operation of 18 GHz low power systems. We believe that the proposed rule amendment will serve the public interest by meeting a demand for a valuable communications service.

II. BACKGROUND

2. Under the current rules, licensees may operate multiple low power point-to-multipoint transmitters at sites anywhere within a 28 kilometer (17.5 mile) radius of the reference coordinates listed on the license. All private operational fixed licensees, including those with 18 GHz low power authorizations, may share their systems' excess capacity on a for-profit, private carrier basis under Section 94.17(a) of the Rules. Customers of such private carriers,

however, must themselves be eligible for licensing under Part 94. See 47 C.F.R. § 94.5. The federal government is not a Part 94 eligible.

3. On October 9, 1991, Motorola filed a petition for rule making<sup>1</sup> requesting modification of Section 94.17(a)(1) of the Rules "to allow Federal Government entities to employ low power 18 GHz Digital Termination System (DTS) spectrum as end users operating under licenses issued to private eligibles."<sup>2</sup>

III. DISCUSSION

4. Currently Motorola markets to non-federal users an 18 GHz in-building wireless network, called "Altair," that operates, in most metropolitan areas, multiple low power transmitting devices on the 18 GHz channels. Motorola's network provides local area networks ("LANs") that use radio, rather than hard wiring, to connect computing devices within an office, manufacturing, or industrial complex.<sup>3</sup> Motorola would like to extend this service to federal government end users under the shared use provisions of Section 94.17(a). As precedent for the relief it requests, Motorola references Section 90.603(c), which was amended to allow federal entities to be eligible end users of Specialized Mobile Radio licensees in the 800 and 900 MHz mobile bands.<sup>4</sup>

5. Motorola, in its petition, sets forth the significant public interest benefits currently derived from the use of its wireless LANs by non-federal government eligibles. According to Motorola, the benefits Altair offers Part 94 eligibles are also applicable to the federal sector. For example, Motorola points out, Altair's design can overcome problems associated with current wired networks -- twisted pair, coaxial or fiber optic cable -- which make hard wiring for telecommunications and data communications systems within a building environment expensive and difficult to install, maintain, and change. Motorola notes that many buildings more than 30 or 40 years old, such as buildings in the federal sector, cannot easily accommodate communications wiring because the older designs and construction techniques utilized in these buildings did not contemplate the electronic office. In these cases, Motorola contends, Altair's design "is flexibl[e] and can overcome the high costs, delays, and inconvenience encountered in installing, expanding, or changing hard-wired local area networks."<sup>5</sup> Thus, Motorola concludes, access to 18 GHz channels for reliable, cost effective wireless LAN systems would improve federal government efficiency and productivity. Motorola further asserts that the requested rule change would not adversely impact non-federal users since 18 GHz low power systems operate on exclusive assignments and would still permit significant spectrum reuse within the 17.5 mile radius covered by each low power license. Such low power frequency reuse produces high

<sup>1</sup> The petition, RM-7839, was put on public notice on October 28, 1991.

<sup>2</sup> Petition at 1. Informal comments in support of Motorola's proposal were filed by Control Cable, Inc., Threshold Technology, and BDS, Incorporated, which are sellers and resellers of computer equipment and networks to the government.

<sup>3</sup> A local area network is "[a] data-communications system, usually owned by a single organization, that allows similar or dissimilar digital devices to talk to each other over a common transmission medium. Communications can also take place among diverse equipment types: mainframes, minicomputers,

microcomputers, work [sic] processors, personal computers, intelligent terminals, workstations, printers, and disk drives. A local network provides such communications over a limited geographical area: a floor, a section of a building, an entire building or a cluster of buildings, or in a multistory building or factory complex. Distances can vary from a few hundred feet to several miles." Rudolf F. Graf, *Modern Dictionary of Electronics*, 6th ed., Howard W. Sams & Company (1989), at 570-571.

<sup>4</sup> See *Report and Order*, PR Docket 86-404, 3 FCC Rcd 1838, 1839-40 (1988).

<sup>5</sup> Petition at 3.

capacity systems capable of meeting the communications requirements of both federal and non-federal users without affecting service quality or availability. We believe, therefore, that the public interest would be served by adding the federal government as an eligible end user.

6. In a recent proceeding, the Commission amended the rules to allow federal government entities to be eligible end users of Specialized Mobile Radio ("SMR") systems in the 800 and 900 MHz mobile bands. We recognized that SMRs are high capacity systems operating on exclusive assignments and thus are capable of serving a broader range of eligible users without diminishing service quality or availability.<sup>6</sup> We found that expanding end user eligibility to the federal government would increase communications options, increase the potential customer base for SMR operators, and enhance spectrum efficiency.<sup>7</sup> We believe that analogous benefits would accrue from modifying the rules to allow the federal government to become an eligible end user of 18 GHz low power systems.

7. For the reasons discussed above, the rule change proposed by Motorola appears to have merit. We ask for comment on the rule change set forth in the attached Appendix.

#### IV. INITIAL REGULATORY FLEXIBILITY ANALYSIS

##### A. Reason for Action.

8. The Commission is proposing this rule change to enable private carriers using multiple low power point-to-multipoint transmitting devices on 18 GHz channels to operate wireless local area networks to offer their facilities or resell their excess capacity to federal government eligibles.

##### B. Legal basis.

9. Sections 4(i), 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r).

##### C. Reporting, recordkeeping, and other compliance requirements.

10. No new requirements will be imposed upon licensees because of this action.

##### D. Federal rules which overlap, duplicate, or conflict with this rule.

11. None.

##### E. Description, potential impact, and number of small entities involved.

12. Private carriers as well as resellers could offer 18 GHz channels for wireless local area networks to federal government eligibles. It is unknown how many small entities would develop wireless LANs using 18 GHz technology to serve federal eligibles. Allowing the federal government to become eligible for spectrum not currently available to it would allow private equipment providers to

meet in-building network needs with devices that are already commercially available instead of having to design equipment particularly for the federal sector.

##### F. Any significant alternatives minimizing the impact on small entities and consistent with the stated objectives.

13. None.

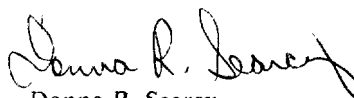
#### V. PROCEDURAL MATTERS

14. Authority for issuance of this *Notice of Proposed Rule Making* is contained in Sections 4(i) and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i) and 303(r). This is a non-restricted notice and comment rule making proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in Commission rules. See generally 47 C.F.R. Sections 1.1202, 1.1203, and 1.1206(a).

15. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules, 47 C.F.R. Sections 1.415 and 1.419, interested parties may file comments on or before **September 7, 1992**, and reply comments on or before **September 22, 1992**. To file formally in this proceeding, you must file an original and five copies of all comments, reply comments, and supporting comments. If you want each Commissioner to receive a personal copy of your comments, you must file an original plus nine copies. You should send comments and reply comments to the Office of the Secretary, Federal Communications Commission, Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the Dockets Reference Room of the Federal Communications Commission, 1919 M Street, N.W., Washington, D.C. 20554.

16. For further information contact Tatsu Kondo, Land Mobile and Microwave Division, Private Radio Bureau at (202) 634-2443.

#### FEDERAL COMMUNICATIONS COMMISSION

  
Donna R. Searcy  
Secretary

#### APPENDIX

Part 94 of Chapter I of Title 47 of the Code of Federal Regulations is proposed to be amended as follows:

1. The authority citation for Part 94 continues to read as follows:

<sup>6</sup> We noted that the legislative history of the Communications Amendments Act of 1982 indicated that Congress intended that the private radio services should be accessible to the largest feasible number of users. Therefore, we reasoned that modifying SMR user eligibility to include federal government entities was consistent with our statutory authority. *Report and Order*, PR

Docket No. 86-404, 3 FCC Rcd at 1840. We believe that the proposed rule change to enable federal government eligibles to utilize 18 GHz spectrum offered by private carriers is analogous with the rule change expanding SMR user eligibility to include federal government eligibles.

<sup>7</sup> *Id.* at 1842.

Authority: Sections 4, 303, 48 Stat., as amended 1066, 1082; 47 U.S.C. §§ 154, 303, unless otherwise noted.

2. Section 94.17 is amended by revising paragraph (a)(1) to read as follows:

**§ 94.17 Shared use of radio stations and the offering of private carrier communications service.**

(a) \*\*\*\*\*

(1) Persons or governmental entities licensed to operate radio systems on any of the frequencies set out in § 94.61(b) may share such systems with, or provide private carrier service to, any eligible for licensing under this part, regardless of individual eligibility restrictions enumerated in § 94.61(b), provided that the communications carried are permissible under § 94.9. In addition, persons or governmental entities licensed to operate low power systems under the provisions of § 94.88 may share such systems with, or provide private carrier services to, Federal Government entities, provided the communications carried are permissible under § 94.9.

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